Docket No.: CDSI-P01-020

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## AMENDMENTS TO THE CLAIMS

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- (Currently Amended) A method for monitoring the effectiveness of a regimen for treatment of an ocular disease, comprising:
  - obtaining, from a subject, one or more measurements selected from the group eonsisting of self-reported data and behavioral, genetic, neurological, biochemical and physiological measurements;
  - (ii) treating said subject, or a different subject, with said regimen for a selected period of time;
  - (iii) obtaining from a subject who has been treated with the regimen, one or more measurements selected from the group consisting of self-reported data and behavioral, genetic, neurological, biochemical and physiological measurements;
  - (iv) determining changes in the measurements induced by the regimen, by comparing the measurements obtained in (i) with the measurements obtained in (iii);
  - (v) comparing said measurements or changes in the measurements, or both, to a signature, said signature representing probability relationships between one or more predictor variables and one or more clinical outcomes for said disease; and
  - (vi) determining, from the comparison in step (v), a probability that continued treatment of the subject with the regimen will result in a favorable clinical outcome;

wherein the identities of the predictor variables are determined by correlating previously-obtained clinical outcomes with previously-obtained measurements selected from the group consisting of self-reported data and behavioral, genetic, neurological, biochemical and physiological measurements, and mathematical combinations thereof, said correlations being derived by using at least one automated non-linear algorithm.

- 2. (Currently Amended) The method of claim 1, wherein the disease is ocular disease, the clinical outcome is an increase in visual acuity, and the measurement is a measure of retinal thickness.[[,]]
- 3. (Original) The method of claim 2, wherein the disease is macular disease.

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- 4. (Currently Amended) The method of claim 2, wherein the measure of retinal thickness is obtained by a means selected from the group consisting of confocal scanning laser ophthalmoscopes, optical coherence tomography scanners, and scanning retinal thickness analyzers.
- (Currently Amended) The method of claim 3, wherein the measure of retinal thickness is obtained by a means selected from the group consisting of confocal scanning laser ophthalmoscopes, optical coherence tomography scanners, and scanning retinal thickness analyzers.
- 6. (Original) The method of claim 2, wherein the treatment regimen comprises administration of an anti-inflammatory corticosteroid.
- 7. (Original) The method of claim 3, wherein the treatment regimen comprises administration of an anti-inflammatory corticosteroid.
- 8. (Original) The method of claim 4, wherein the treatment regimen comprises administration of an anti-inflammatory corticosteroid.
- (Original) The method of claim 5, wherein the treatment regimen comprises administration of an anti-inflammatory corticosteroid.
- 10. (Original) The method of claim 6, wherein the anti-inflammatory corticosteroid is administered via an intraocular implant.
- 11. (Original) The method of claim 7, wherein the anti-inflammatory corticosteroid is administered via an intraocular implant.
- (Original) The method of claim 8, wherein the anti-inflammatory corticosteroid is administered via an intraocular implant.

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- 13. (Original) The method of claim 9, wherein the anti-inflammatory corticosteroid is administered via an intraocular implant.
- 14. (Original) The method of claim 10, wherein the corticosteroid is fluocinolone acetonide or triamcinolone acetonide.
- 15. (Original) The method of claim 11, wherein the corticosteroid is fluocinolone acetonide or triamcinolone acetonide.
- (Original) The method of claim 12, wherein the corticosteroid is fluocinolone acetonide or triamcinolone acetonide.
- 17. (Original) The method of claim 13, wherein the corticosteroid is fluocinolone acetonide or triamcinolone acetonide.
- 18. (Withdrawn) A pharmaceutical product for treatment of an ocular disease, comprising:
  - (i) a drug substance indicated for treatment of a macular disease; and
  - (ii) instructions for monitoring the effectiveness of a treatment regimen according to the method of any one of claims 2-17;
  - wherein the treatment regimen comprises administration of the indicated drug substance.
- 19. (Withdrawn) A pharmaceutical product according to claim 18 wherein the drug substance and the instructions are packaged together.
- 20. (Withdrawn) A pharmaceutical product according to claim 18, further comprising means for accessing a database containing one or more signatures representing probability relationships between changes measurements selected from the group consisting of self-reported data, behavioral, neurological, biochemical, or physiological responses, and clinical outcomes for macular disease.

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- 21. (Withdrawn) A pharmaceutical product according to claim 19, further comprising means for accessing a database containing one or more signatures representing probability relationships between changes measurements selected from the group consisting of self-reported data, behavioral, neurological, biochemical, or physiological responses, and clinical outcomes for macular disease.
- 22. (Withdrawn) A pharmaceutical product according to claim 18, wherein at least one of the measurements is a measurement of refinal thickness.
- 23. (Withdrawn) A pharmaceutical product according to claim 19, wherein at least one of the measurements is a measurement of retinal thickness.
- 24. (Withdrawn) A pharmaceutical product according to claim 20, wherein at least one of the measurements is a measurement of retinal thickness.
- 25. (Withdrawn) A pharmaceutical product according to claim 21, wherein at least one of the measurements is a measurement of retinal thickness.
- 26. (Withdrawn) A pharmaceutical product according to claim 22, wherein the clinical outcome is an improvement in visual acuity.
- 27. (Withdrawn) A pharmaceutical product according to claim 23, wherein the clinical outcome is an improvement in visual acuity.
- 28. (Withdrawn) A pharmaceutical product according to claim 24, wherein the clinical outcome is an improvement in visual acuity.
- 29. (Withdrawn) A pharmaceutical product according to claim 25, wherein the clinical outcome is an improvement in visual acuity.

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- 30. (Previously Presented) A method for treating an ocular disease, comprising administering a drug indicated for treatment of an ocular disease, and monitoring the effectiveness of said administration by the method of any of claims 2-17.
- 31. (Currently Amended) A method for conducting a drug discovery business, comprising:
  - obtaining, from a test animal or from stored data, one or more measurements selected from the group consisting of behavioral, neurological, biochemical and physiological measurements;
  - (ii) treating said test animal with a test compound for a selected period of time;
  - (iii) obtaining, from a test animal treated with the regimen, one or more measurements selected from the group consisting of behavioral, neurological, biochemical and physiological measurements;
  - (iv) determining changes in the measurements induced by the regimen, by comparing the measurements obtained in (i) with the measurements obtained in (iii);
  - (v) comparing said measurements or changes in the measurements, or both, to a signature, said signature representing probability relationships between one or more predictor variables and one or more clinical outcomes for said disease; and
  - (vi) determining, from the comparison data of step (ii), the suitability of further clinical development of the test compound;

wherein the identities of the predictor variables are determined by correlating predetermined physiological states, or responses to known drugs, with previously-obtained measurements selected from the group consisting of self-reported data and behavioral, genetic, neurological, biochemical and physiological measurements, and mathematical combinations thereof; said correlations being derived by using at least one automated non-linear algorithm.

32. (Previously Presented) The method of claim 31, further comprising conducting therapeutic profiling of a test compound determined to be suitable for further clinical development for efficacy and toxicity in animals.

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- 33. (Previously Presented) The method of claim 31, further comprising preparing a structural analogue of a test compound determined to be suitable for further clinical development, and conducting therapeutic profiling of said analogue for efficacy and toxicity in animals.
- 34. (Previously Presented) The method of claim 32 or claim 33, further comprising licensing a test compound determined to be suitable for further clinical development, or an analog thereof, to another business for clinical trials in human subjects.